5

10

15

20

25

40. Apparatus according to claim 39, wherein the viewing camera generator is operable to calculate the approximate centre of the three-dimensional computer model by calculating the centre of a three-dimensional shape bounding the three-dimensional computer model.

- 41. Apparatus according to claim 38, wherein the viewing camera generator is operable to define the viewing camera in dependence upon the stored calibration pattern and in dependence upon data input by a user defining the height of the subject object.
- 42. Apparatus for generating data defining a three-dimensional computer model of a subject object for rendering by a predetermined viewing camera to show a predetermined part of the subject object, comprising:

a data receiver for receiving image data defining images of a subject object together with a calibration pattern recorded at different relative recording positions and orientations, the subject object being positioned relative to the calibration pattern so that a selected part of the subject object which is to appear in an image of the three-dimensional computer model generated using the viewing camera faces in a predetermined direction relative to the calibration

20

25

5

pattern;

a position and orientation calculator operable to process the image data to calculate the relative positions and orientations at which the images were recorded by comparing the calibration pattern in the images with stored data defining the calibration pattern relative to the predetermined camera viewing position and direction; and

a computer model generator operable to generate data defining a three-dimensional computer model of the subject object relative to the stored calibration pattern using the calculated positions and orientations.

- 43. Apparatus according to claim 42, wherein the computer model generator is operable to generate the three-dimensional computer model at a position relative to the stored calibration pattern and in dependence upon at least one of the generated three-dimensional computer model, data defining the height of the subject object and data defining a predetermined value estimating the height of the three-dimensional computer model.
- 44. Apparatus according to claim 43, wherein, in order to position the three-dimensional computer model, the computer model generator is operable to re-position at

20

25

5

least one of the stored calibration pattern and the three-dimensional computer model relative to the predetermined viewing camera in dependence upon at least one of the generated three-dimensional computer model, data defining the height of the subject object and data defining a predetermined value estimating the height of the three-dimensional computer model.

- 45. Apparatus according to claim 43, wherein the computer model generator is operable to process the three-dimensional computer model to determine the approximate centre thereof, and to position the three-dimensional computer model relative to the stored calibration pattern and relative to the calculated approximate centre.
- 46. Apparatus according to claim 43, wherein the computer model generator is operable to position the three-dimensional computer model relative to the stored calibration pattern and relative to a position determined from data input by a user defining the height of the subject object.
- 47. A system for recording images of a subject object, for processing the image data to generate data defining